

b1  
cancel  
the toner from scattering, and the toner is discharged little-by-little through a small opening, as is known.--

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Please substitute the paragraph starting at page 2, line 17 and ending at page 2, line 21 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

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b2  
--The toner supply container is kept inside the main assembly of the apparatus in use, and the toner is fed by rotating the toner feeding member by the main assembly side of the apparatus, so that the former is discharged little-by-little through the opening.--

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Please substitute the paragraphs starting at page 4, line 3 and ending at page 5, line 1 with the following replacement paragraphs. A marked-up copy of these paragraphs, showing the amendments made thereto, is attached.

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b3  
--(1) In the first case, it is required to properly engage the gear portion provided on the outer surface of the bottle with a driving gear portion of the main assembly of the image forming apparatus when the toner bottle is inserted into the main assembly, and the operation requires special attention of the user, and therefore, this system places demands on the user. The rotation of the toner bottle by engagement between gears produces a force tending to cause lateral deviation of the toner bottle with the result of the toner bottle deviating to prevent correct rotation. It would be required in order to prevent such a deviation that the entire surface of the toner bottle is enclosed and supported. If this is

B3  
amend

done, the mounting and demounting of the toner bottle would not be easy. In addition, the structure for the supply system would be complicated, leading to an increase in cost.

(2) In the second and third case, the positioning in the direction of the rotation of the toner bottle is required when the projection (recesses) of the end surface of the toner bottle is brought into the engagement with the recess (projection) of the main assembly driving portion. This degrades the supplying operativity since it places a demand on the user.

Even a small deviation might prevent proper drive transmission.--

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Please substitute the paragraphs starting at page 7, line 27 and ending at page 8, line 3 with the following replacement paragraphs. A marked-up copy of these paragraphs, showing the amendments made thereto, is attached.

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--Figure 7 is a view as seen in the direction of arrow A shown in Figure 6.

B4

Figure 8 is a sectional view of the device shown in Figure 6.--

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Please substitute the paragraph starting at page 12, line 3 and ending at page 12, line 5 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

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B5

--Figure 50(A) is a view of the sealing member as shown in Figure 49 as seen in the direction of arrow A, and Figure 50(B) is a view of the sealing member as shown in Figure 49 in the direction of arrow B.--

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Please substitute the paragraph starting at page 12, line 24 and ending at page 12, line 26 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

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B4 --Figure 59(A) is a view of the sealing member as shown in Figure 58 as seen in the direction of arrow A, and Figure 59(B) is a view of the sealing member as shown in Figure 58 in the direction arrow B.--

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Please substitute the paragraph starting at page 17, line 16 and ending at page 17, line 19 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

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B7 --The cleaning station 202 is provided for removing the toner particles remaining on the photoconductive drum 104. The primary charger 203 is provided for charging the photoconductive drum 104.--

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Please substitute the paragraph starting at page 18, line 26 and ending at page 19, line 20 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

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B8 --The toner supply container 1, which hereinafter may sometimes be referred to as the toner bottle, is virtually cylindrical, and has a toner outlet 1a, which is smaller in diameter than the main structure of the toner bottle 1, and projects from the approximate center of the outward surface of one of the end walls of the toner bottle 1. The toner outlet 1a is provided with a sealing member for sealing the toner outlet 1a. The sealing member 2 is slidable in the axial direction of the toner bottle 1 to open or close the

B8  
Amended

toner outlet 1a. The end of the sealing member 2 is provided with the toner supply container side 3, that is, one of the two pieces of a surface (surface-to-surface) fastener, which engages with the main assembly side 30, that is, the other of the two pieces of the surface fastener 30, which is attached to the surface of the driving portion 20 (Figure 9) of the image forming apparatus main assembly, which will be described later, to transmit rotational force to the toner bottle 1. The configurations of the two sides 3 and 30 of the surface fastener will be described later in detail.--

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Please substitute the paragraph starting at page 19, line 23 and ending at page 20, line 6 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

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B9

--The toner bottle 1 has a virtually cylindrical shape, and is approximately horizontally disposed within the image forming apparatus main assembly. It is structured to rotate by receiving a rotational force from the apparatus main assembly 100. The toner bottle 1 has a spiral rib 1c, which is provided on the internal surface of the bottle 1. As the toner bottle 1 rotates, the toner therein is conveyed in the axial direction of the bottle 1 along the spiral rib 1c, and is discharged from the toner outlet 1a located at one end of the toner bottle 1.--

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Please substitute the paragraph starting at page 21, line 20 and ending at page 22, line 11 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

b<sup>1</sup> --The main structure 1A of the toner bottle 1 is provided with the toner outlet 1a and a drive shaft 1b. The toner outlet 1a is attached to one of the end walls of the toner bottle main structure 1A, and the drive shaft 1b is integral with the toner bottle main structure 1A and projects outward through the toner outlet 1a. The drive shaft 1b approximately coincides with the toner outlet 1a in terms of axial line, and fits in the hole 2a of the sealing member 2. The drive shaft 1b is provided for transmitting rotational driving force to the bottle main structure 1A from the apparatus main assembly 100 by way of the sealing member 2. Thus, the drive shaft 1b having such a cross section enables the drive shaft 1b to transmit rotational driving force to the toner bottle main structure 1A; the cross section of the drive shaft 1b is in the form of a square, a letter H or D, or the like. Further, the drive shaft 1b is solidly fixed to the bottom main structure 1A.--

Please substitute the paragraph starting at page 24, line 10 and ending at page 24, line 25 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

b<sup>11</sup> --Although the sealing member 2 is preferred to be formed of resinous material such as plastic by injection molding, it may be formed of a material other than resinous material and by a manufacturing method other than injection molding. Further, it may be formed in one piece, or may be molded in multiple pieces, which are joined together. Further, the sealing member 2 is required to have a proper amount of elasticity so that it can be pressed into the toner output 1a to hermetically seal the toner outlet 1a. For this purpose, the low density polyethylene is most desirable as the material for the sealing

B11  
Conrad

member 2. Also polypropylene or a straight chain polyamide, that is, nylon in commercial name, high density polyethylene, or the like, may be used with desirable results.--

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Please substitute the paragraph starting at page 28, line 22 and ending at page 29, line 11 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

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B12

--Although the toner supply container side 3 of the surface fastening means in this embodiment is attached to the end of the sealing member 2, this side 3 of the surface fastening means may be molded as an integral part of the sealing member 2 as shown in Figure 11. Further, this side 3 of the surface fastening means may be solidly adhered to the surface of the sealing member 2, with the interposition of an adhering member 3b between the back side of the side 3 of the surface fastening means and the surface of the sealing member 2 as shown in Figure 12. Further, the toner supply container side 3 may be attached to the end of the sealing member 2 with the use of any of many methods other than the above mentioned ones, for example, a small screw, a bolt, or the like.--

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Please substitute the paragraph starting at page 34, line 7 and ending at page 34, line 9 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

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--The toner supply container 1 in this embodiment is replaced by a user.

B13

The replacement procedure is as follows.--

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Please substitute the paragraph starting at page 36, line 6 and ending at page 36, line 11 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

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B14  
--Figure 29 is a drawing, which shows one of the sequential steps through which the toner bottle 1 is inserted into the apparatus main assembly 100. In this step, the toner outlet 1a located at the leading end of the toner bottle 1 is sealed with the sealing member 2.--

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Please substitute the paragraph starting at page 48, line 25 and ending at page 49, line 16 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

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B15  
--As for the cartridge mounting means, as a cover 14 is opened about an axis 14a, the cartridge mounting space is exposed, in which a pair of cartridge guiding members 32 are attached to the left and right walls, one for one, in parallel with each other, as shown in Figure 40 (which shows only one of the lateral walls of the cartridge mounting space). The left and right cartridge guiding member 32 each are provided with a guiding portions 32a for guiding the process cartridge B when the process cartridge B is inserted into the apparatus main assembly. The guiding portions 32a are in parallel with each other. The cartridge B is inserted into the image forming apparatus A, with the bosses projecting perpendicularly from the lengthwise ends of the frame of the cartridge B guided by these guiding portions 32a. Then, as the cover 14 is closed, the process cartridge B is properly set in the image forming apparatus B.--

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Please substitute the paragraph starting at page 50, line 8 and ending at page 50, line 20 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

B16  
--On the other hand, the image forming apparatus main assembly is provided with the main assembly side 30 of the surface fastener. This fastener component 30 on the main assembly side is positioned relative to the drive shaft 1b so that as the process cartridge B is inserted into the apparatus main assembly 13, the axial line of the main assembly side 30 of the surface fastener aligns with that of the photoconductive drum 7. To this drive shaft 1b, a rotational force is transmitted from the pinion gear 33 of a motor 19 through a transmission gear 34. The main assembly side 30 of the surface fastener is attached to the end portion of this drive shaft 1b.--

Please substitute the paragraph starting at page 53, line 19 and ending at page 53, line 21 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

B17  
--As is evident in the foregoing descriptions of the first and second embodiments, the present invention provides the following effects:--

Please substitute the paragraph starting at page 55, line 10 and ending at page 55, line 14 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.



B18  
--(5) The foregoing listed effects of the present invention regarding a toner supply container are also true of the driving force transmission between a process cartridge and the image forming apparatus main assembly.--

Please substitute the paragraph starting at page 58, line 1 and ending at page 58, line 9 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

B19  
--The length by which the hole 2a and drive shaft 1b engage with each other in terms of their axial direction is sufficient to prevent the drive shaft 1b from becoming disengaged from the hole 2a when the sealing member 2 is separated from the toner bottle main structure 1A. Thus, even when the sealing member 2 is apart from the toner bottle main structure 1A, the drive shaft 1b can receive a driving force through the sealing member 2.--

Please substitute the paragraph starting at page 58, line 15 and ending at page 59, line 3 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

B20  
--Although the sealing member 2 is preferred to be formed of resinous material such as plastic by injection molding, it may be formed of a material other than the resinous material and by a manufacturing method other than injection molding. Further, it may be formed in one piece, or may be molded in multiple pieces, which are joined together. Further, the sealing member 2 is required to have a proper amount of elasticity so that it can be pressed into the toner outlet 1a to hermetically seal the toner outlet 1a. For

*B20*  
this purpose, the low density polyethylene is most desirable as the material for the sealing member 2. Also, polypropylene or straight chain polyamide, that is, nylon (commercial name), high density polyethylene, or the like, may be used with desirable results.--

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Please substitute the paragraph starting at page 63, line 22 and ending at page 64, line 8 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

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*B21*  
--As for the material for the surface fastener described above, resinous material such as plastic is desirable, and as for the production method therefor, injection molding is desirable. However, a material and production method other than the above may be employed. The toner supply container side 3 and main assembly side 30 of the surface fastener are required to have a proper amount of elasticity, when they are engaged or disengaged. Therefore, it is preferable that resinous material, for example, polyolefin resin, straight chain polyamide resin such as nylon (commercial name), polypropylene resin, or the like is employed as the material for the two sides 3 and 30 of the surface fastener.--

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Please substitute the paragraph starting at page 68, line 10 and ending at page 68, line 22 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

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*B22*  
--However, when the driving force transmitting portion 20 on the image forming apparatus main assembly side 30 is approximately the same in configuration and size as the driving force receiving portion on the toner supply container side, and is in the

B22  
conced

noncylindrical form, for example, a user must align a toner supply container in terms of its circumferential direction when mounting the toner supply container. Thus, it is preferable from the standpoint of operability that the driving force transmitting portion 20 and driving force receiving portion be nearly cylindrical.--

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Please substitute the paragraph starting at page 77, line 26 and ending at page 78, line 10 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.

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B23

--Further, when the driving force transmitting portion 20 on the image forming apparatus main assembly side is approximately the same in configuration and size as the driving force receiving portion on the toner supply container side, and is in the noncylindrical form, for example, in the form of a triangle or polygonal pillar, a user must align a toner supply container in terms of rotational phase when mounting the toner supply container. Thus, it is preferable from the standpoint of operability that the driving force transmitting portion 20 and driving force receiving portion be virtually cylindrical.--

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Please substitute the paragraphs starting at page 82, line 14 and ending at page 83, line 7 with the following replacement paragraphs. A marked-up copy of these paragraphs, showing the amendments made thereto, is attached.

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B24

--Figure 63 shows a case in which the toner supply container side 3 of the surface fastener has been constructed as a plurality of pieces 3, and attached to one of the end surfaces 1A1 of the toner bottle main structure 1A, being evenly distributed in the

circumferential direction, and the first barrier 2e has been constructed and positioned to entirely surround the edge of the end surface 1A1 of the toner bottle main structure 1A.

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amend

As is evident from the above described cases, the location on the toner bottle 1q, to which the toner supply container side 3 of the surface fastener is attached, may be freely selected, depending on toner container configuration. However, when the toner supply container side 3 is divided into the plurality of pieces as shown in Figure 63, the main assembly side 30, or the counterpart of the toner supply container side 3, of the surface fastener must be constructed so that it covers virtually the entirety of the end surface of the driving portion 20 on the main assembly side as shown in Figure 62.--

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Please substitute the paragraphs starting at page 84, line 2 and ending at page 84, line 9 with the following replacement paragraphs. A marked-up copy of these paragraphs, showing the amendments made thereto, is attached.

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B25

--As is evident from the foregoing descriptions, the third to fifth embodiments demonstrate the following effects:

(1) Should fragments, fuzz, and the like result from the surface fastener, they can be efficiently captured; such a problem as formation of an image of inferior quality can be prevented by the employment of an inexpensive structural arrangement;--

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IN THE ABSTRACT:

Please substitute the Abstract of the Disclosure section starting at page 104, line 2 and ending at page 104, line 12 with the following replacement paragraph. A marked-up copy of this paragraph, showing the amendments made thereto, is attached.